IASLC
2023 World Conference on Lung Cancer
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Best of WCLC- Supportive Care

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What we will cover today:

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- Early vs. Discretionary Palliative Care vs. Screen+ Discretion Palliative Care (ES12.04/ OA08.07)
- Timing of bone agents (MA01.04)
- Survivorship needs for low income lung cancer patients (OA08.04)

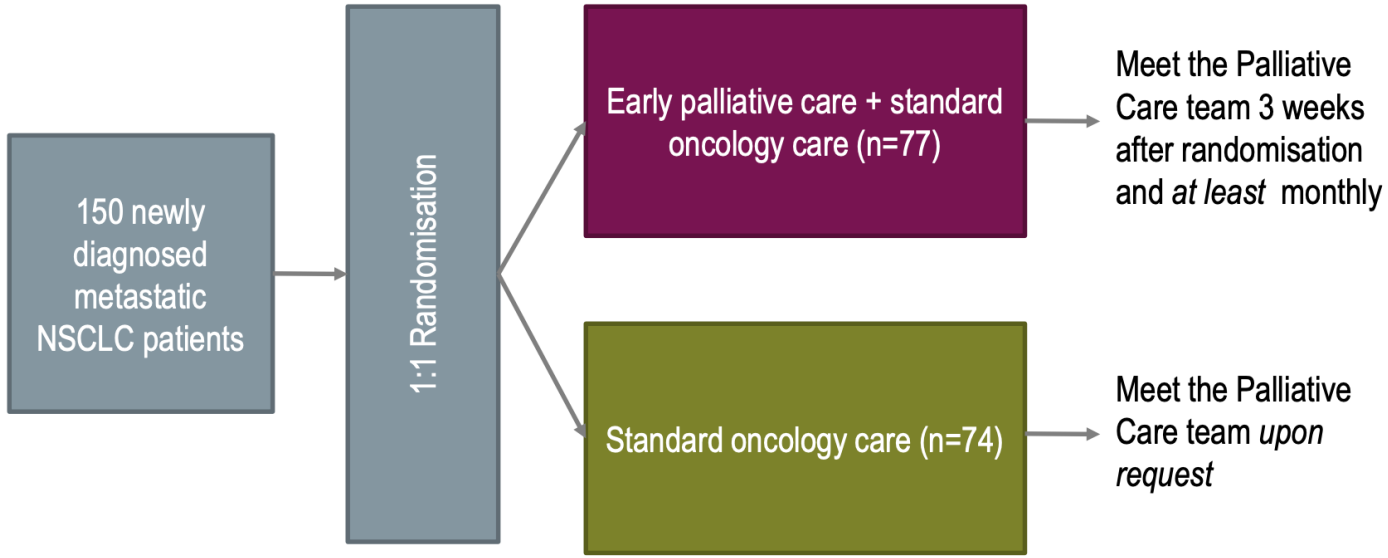
ORIGINAL ARTICLE

Early Palliative Care for Patients with Metastatic Non–Small-Cell Lung Cancer

Jennifer S. Temel, M.D., Joseph A. Greer, Ph.D., Alona Muzikansky, M.A., Emily R. Gallagher, R.N., Sonal Admane, M.B., B.S., M.P.H., Vicki A. Jackson, M.D., M.P.H., Constance M. Dahlin, A.P.N., Craig D. Blinderman, M.D., Juliet Jacobsen, M.D., William F. Pirl, M.D., M.P.H., J. Andrew Billings, M.D., and Thomas J. Lynch, M.D.

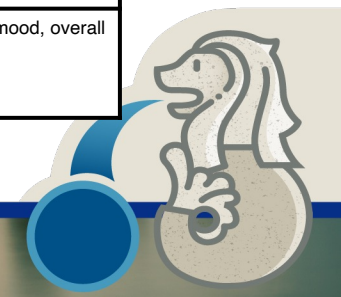
Outcomes:

Better QOL at 12 weeks
Better mood, less anxiety
Better healthcare resource use
Less use of IV chemo, less acute hospitalization and less ED admissions
More DNR documentation, greater length of hospice stay
Possibly better survival: Δ=2.7m, p=0.02; HR 1.7, p=0.01



Has this been replicated?

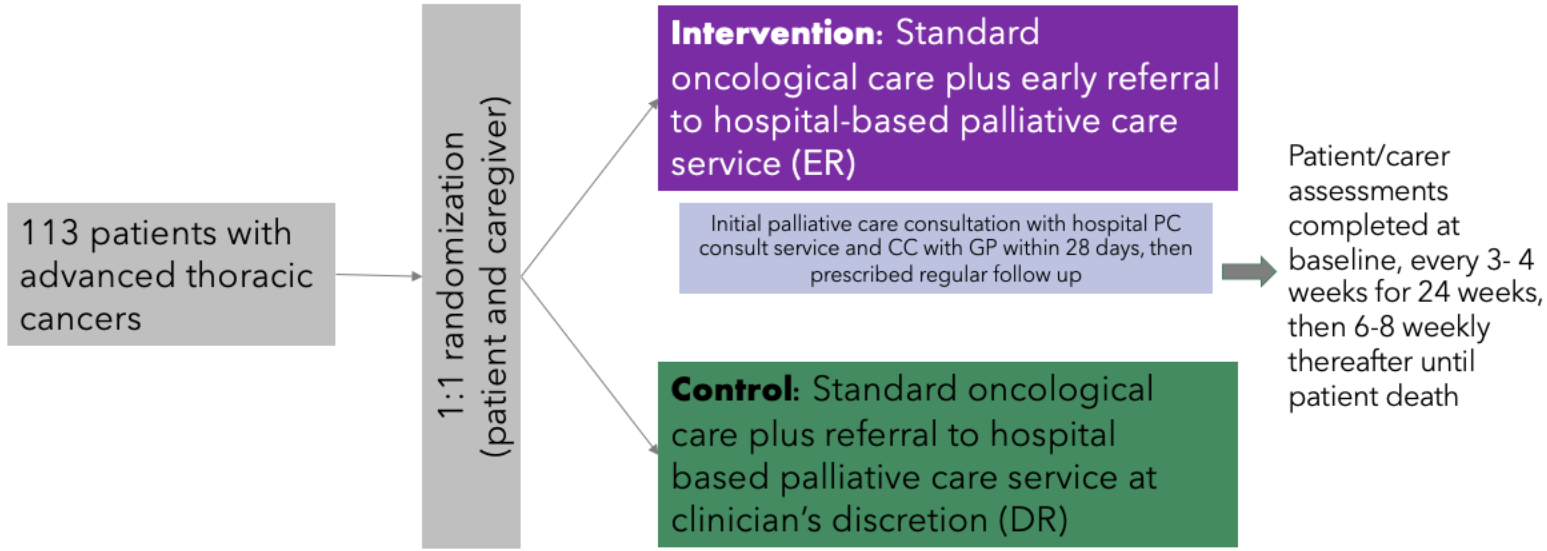
Author	Title	Population	Endpoints	Results
Zhuang et al Curr. Oncol. 2018	Effect of Early Palliative Care on Quality of Life in Patients with Non-Small-Cell Lung Cancer	150 newly-diagnosed NSCLC patients	RCT QOL, mood, pulmonary functionat 12 weeks pef, frc, andtef25%	Improvement in QOL, mood, pulmonary function
Sullivan et al JAMA Oncol. 2019	Association of Early Palliative Care Use With Survival and Place of Death Among Patients With Advanced Lung Cancer Receiving Care in the Veterans Health Administration	23154 patients with advanced lung cancer in the VA health care system 57% received palliative care	Retrospective cohort study Survival	Overall PC was associated with decreases in survival. Timing of PC receipt: 0-30 days after diagnosis: decreases in survival / 31-365 days after diagnosis: increases in survival / >365 days after diagnosis: no difference in survival
Franciosi et al Ann PalliatMed. 2019	Early palliative care and quality of life of advanced cancer patients-a multicenter randomized clinical trial	Advanced non-small cell lung, gastric, pancreatic and biliary tract cancer patients diagnosed within the previous 8 weeks; 5 centres •163 lung cancer	RCT QOL at 12 weeks	No difference in QOL
Chen et al Am J Hosp PalliatCare. 2022	Early Palliative Care in Patients With Non-Small-Cell Lung Cancer: A Randomized Controlled Trial in Southwest China.	120 newly diagnosed NSCLC patients	RCT QOL, psychological state, cancer nutritional and pain status at 24 weeks	Improvements in QOL, psychological state and nutritional status
Vanbutseleet al EurJ Cancer. 2020	The effect of early and systematic integration of palliative care in oncology on quality of life and health care use near the end of life: A randomisedcontrolled trial	New diagnosis or progression of advanced cancer, LE ~ 1y •51 lung cancer	QOL at 6 months	Improvement in QOL
Slamaet al; J PalliatMed. 2020	Effects of Early and Systematic Integration of Specialist Palliative Care in Patients with Advanced Cancer: Randomized Controlled Trial PALINT	Newly diagnosed advanced cancer within 6 weeks from the start of the palliative systemic therapy	QOL and mood at 3 and 6 months; overall survival	No difference in QOL, mood, overall survival



PEARL STUDY

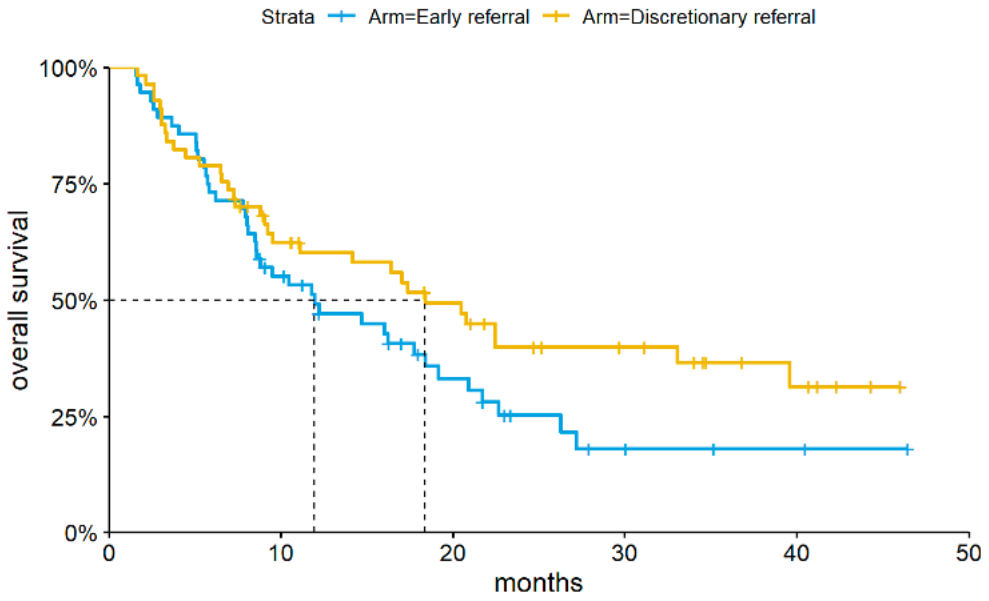
Palliative Care Early in Advanced Lung Cancers

A collaboration between the Australasian Lung Cancer Trials Group ALTG/ Palliative care Clinical Studies Collaborative PaCCSC/ National Health and Medical Research Council Clinical Trials Centre NHMRC CTC



Non-blinded, multi-centre, randomised, phase III clinical trial

- Adults with an advanced thoracic malignancy (NSCLC, SCLC or MPM) diagnosed within 60 days.
- Patients must be able to complete patient-rated questionnaires without assistance
- Random allocation to either early referral to palliative care within **60 days** of diagnosis (ER) or referral at clinician's discretion (DR). All patients to receive standard oncological care

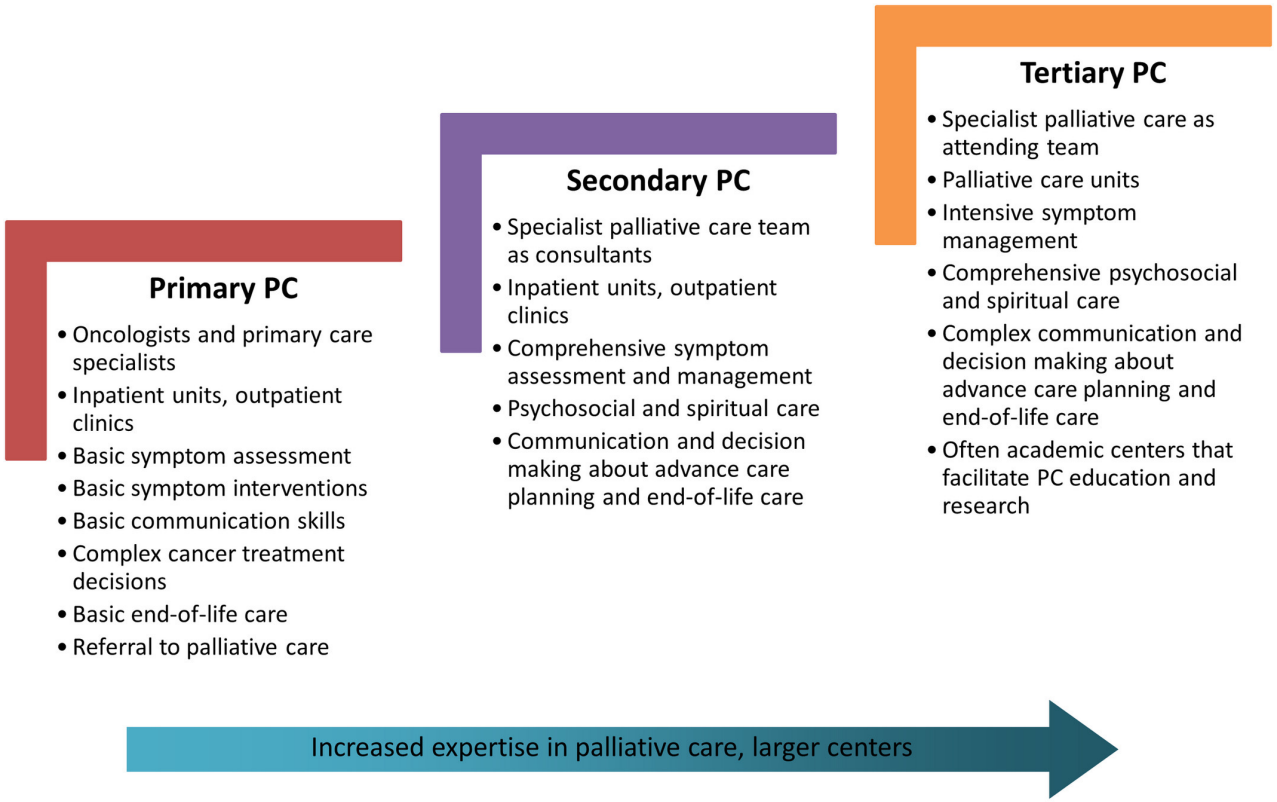


- OS defined as the interval from the date of randomization to date of death from any cause. Patients still alive, or whose status is unknown, at the end of follow-up were censored on the date of last known follow-up
- Median follow up of the cohort approximately 30 months
- 73 patients died during the study
- Median overall survival of the cohort approximately 16.2 months
- **OS similar (no significant difference) for ER vs DR (p=0.11)**

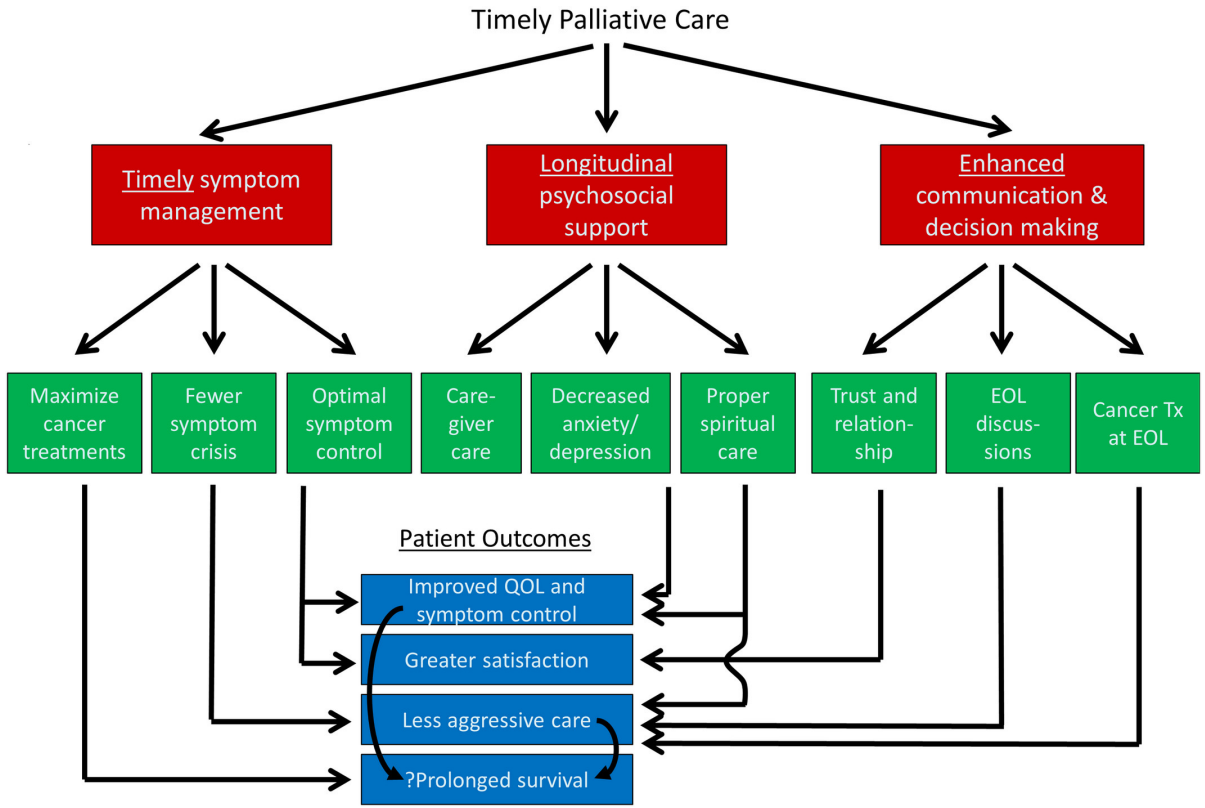
Conclusions:

Early referral to palliative care, compared with discretionary referral, **did not significantly alter outcomes** for Australian patients with advanced thoracic cancers, or their carers

Early involvement with specialist palliative care services did not adversely affect survival



CA A Cancer J Clinicians, Volume: 68, Issue: 5, Pages: 356-376, First published: 13 September 2018, DOI: (10.3322/caac.21490)



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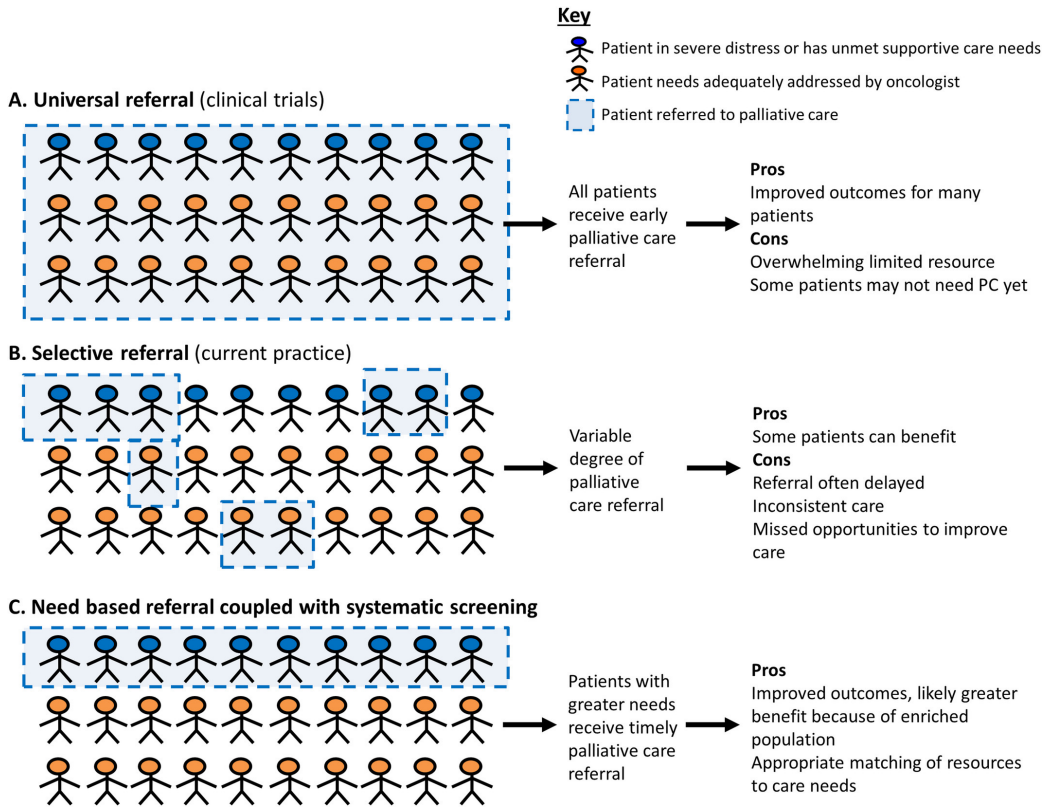


CA A Cancer J Clinicians, Volume: 68, Issue: 5, Pages: 356-376, First published: 13 September 2018, DOI: (10.3322/caac.21490)

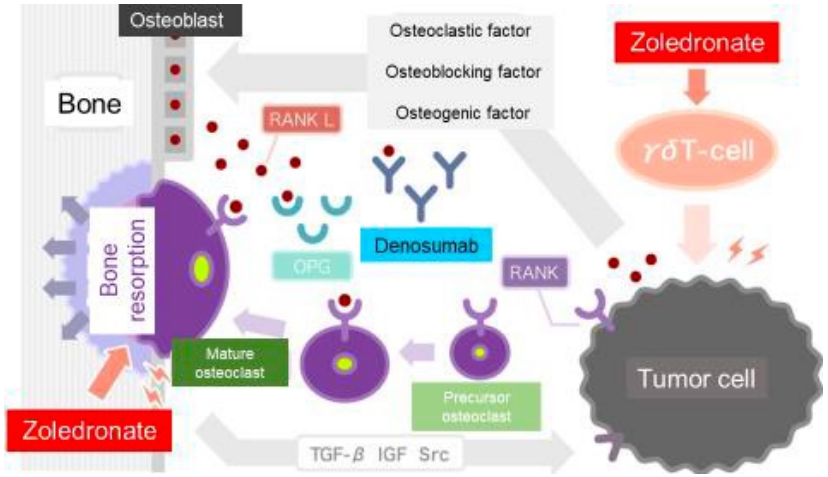
- Zoledronic acid (ZA)every 3-4 weeks reduces the incidence of skeletal-related events (SREs) in patients with bone metastasis (BM) from solid tumors.
- ZA can induce several adverse events: osteonecrosis of the jaw; hypocalcemia; and renal insufficiency.
- Its optimal dosing-interval is uncertain.

Primary endpoint

- The time to first SRE and the rate and types of SREs at 1 year

Secondary endpoint

- SRE incidence at 6 months
- Pain assessed by a numerical rating scale (0–10)
- Change in analgesic consumption
- Metabolic bone markers (serum N-telopeptide, NTX) in association with th dosing interval,
- Toxicity
- Overall survival.



Key eligibility

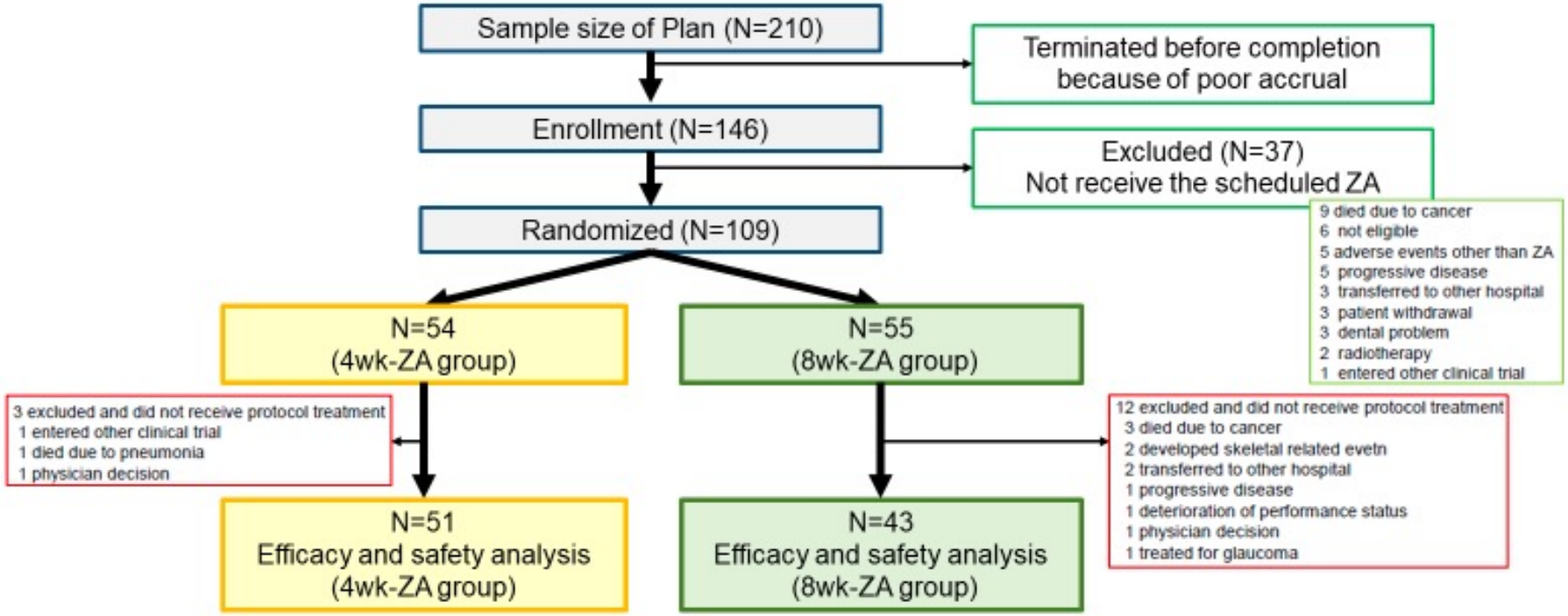
- Lung Cancer
- Radiologically confirmed BM
- ZA for two courses (every 4wk) before enrollment
- PS: 0-3
- Estimated CCR > 30 ml/min
- Ca: >8 and <11.5 mg/dl

Randomized

1:1

4 mg of ZA every 4 weeks for 1 year (4wk-ZA group)

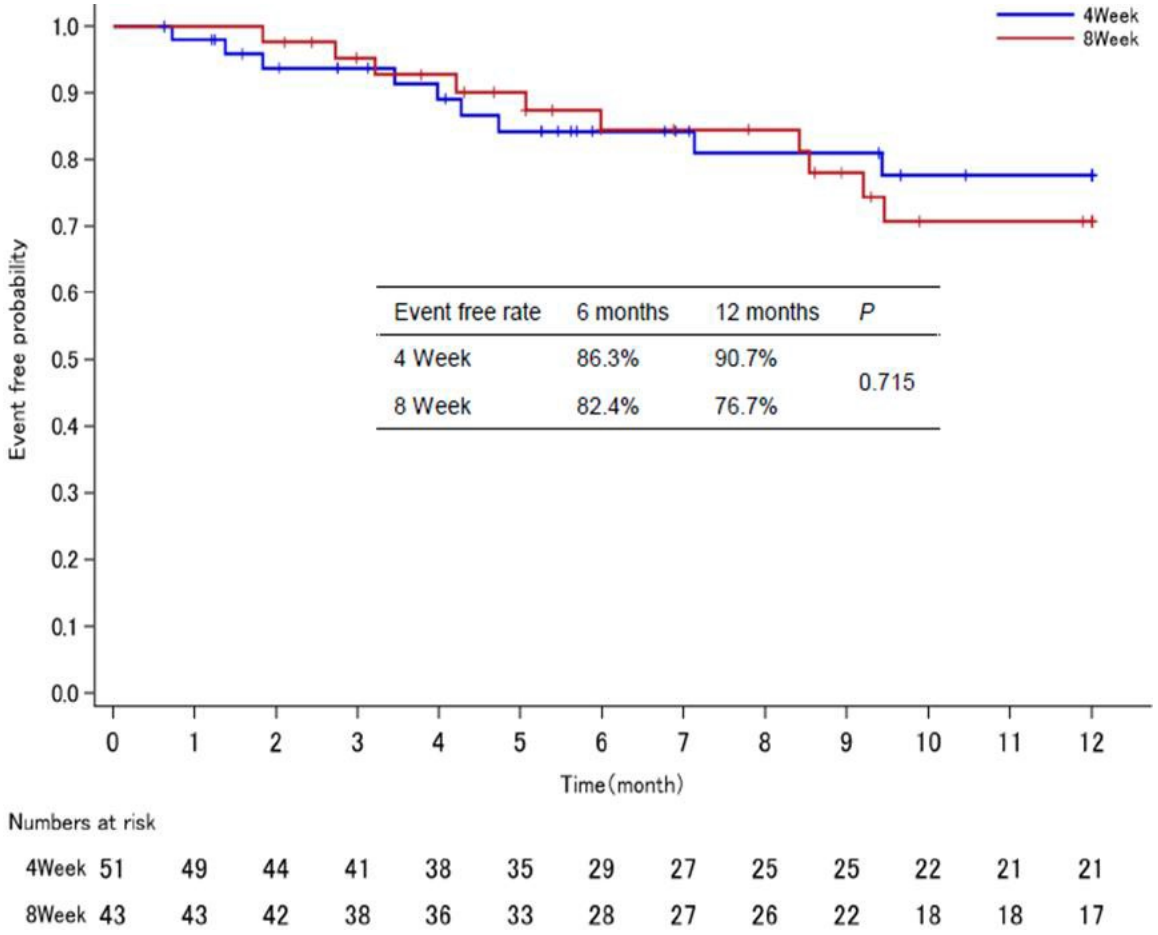
4 mg of ZA every 8 weeks for 1 year (8wk-ZA group)


Sample size of Plan (N=210)
Terminated before completion because of poor accrual
Enrollment (N=146)
Excluded (N=37)
Not receive the scheduled ZA
9 died due to cancer
6 not eligible
5 adverse events other than ZA
5 progressive disease
3 transferred to other hospital
3 patient withdrawal
3 dental problem
2 radiotherapy
1 entered other clinical trial
Randomized (N=109)
N=54
(4wk-ZA group)
N=55
(8wk-ZA group)
3 excluded and did not receive protocol treatment
1 entered other clinical trial
1 died due to pneumonia
1 physician decision
12 excluded and did not receive protocol treatment
3 died due to cancer
2 developed skeletal related evetn
2 transferred to other hospital
1 progressive disease
1 deterioration of performance status
1 physician decision
1 treated for glaucoma
N=51
Efficacy and safety analysis
(4wk-ZA group)
N=43
Efficacy and safety analysis
(8wk-ZA group)

Results:

		ZA every 4wks (n=51) (%)	ZA every 8wks (n=43) (%)
Age	median (range)	70 (37, 80)	69 (39, 99)
Gender	male	32 (62.7)	29 (67.4)
	female	19 (37.3)	14 (32.6)
ECOG performance status	0	13 (25.5)	18 (41.9)
	1	27 (52.9)	21 (48.8)
	2	10 (19.6)	4 (9.3)
	3	1 (2.0)	0 (0.0)
Stage	IIIA	2 (3.9)	0 (0.0)
	IV	45 (88.2)	32 (74.4)
	recurrence	5 (9.8)	11 (25.6)
Histology	small cell	8 (15.7)	5 (11.6)
	non-small cell	3 (5.9)	0 (0.0)
	adenocarcinoma	34 (66.7)	34 (79.1)
	squamous cell	6 (11.8)	3 (7.0)
	others	0 (0.0)	1 (2.3)
EGFR mutation	*exon 19* deletion	10 (19.6)	9 (20.9)
	L858R	10 (19.6)	9 (20.9)
	others	1 (2.0)	1 (2.3)
	unknown	11 (21.6)	9 (20.9)
	none	19 (37.3)	15 (34.9)
Prior EGFR-TKI administration	yes	18 (35.3)	20 (46.5)
	no	33 (64.7)	23 (53.5)

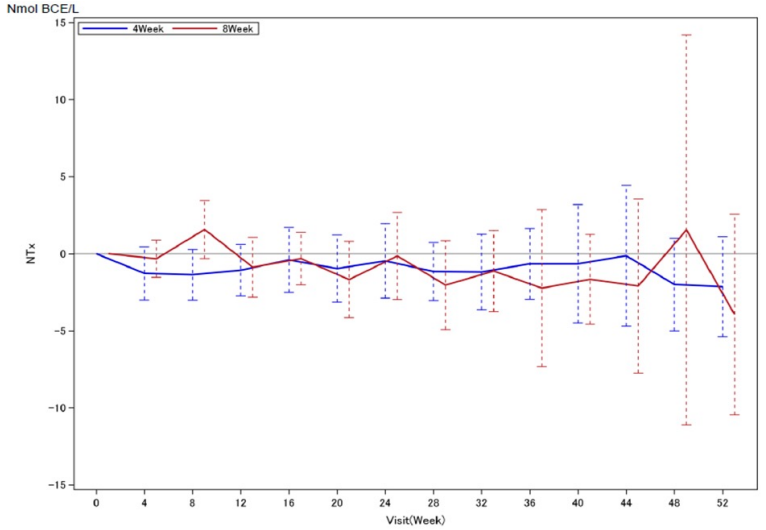
		ZA every 4wks (n=51) (%)	ZA every 8wks (n=43) (%)
Treatment at enrollment	BSC	2 (3.9)	1 (2.3)
	chemotherapy	30 (58.8)	23 (53.5)
	molecular targeted agent	18 (35.3)	16 (37.2)
	chemotherapy + molecular targeted agent	0 (0.0)	2 (4.7)
	chemo-radiotherapy	1 (2.0)	0 (0.0)
	radiotherapy	0 (0.0)	1 (2.3)
Molecular targeted agent	gefitinib	7 (13.7)	5 (11.6)
	erlotinib	2 (3.9)	4 (9.3)
	afatinib	7 (13.7	8 (18.6)
Prior SRE	yes	24 (47.1)	17 (39.5)
	no	27 (52.9)	26 (60.5)
Types of SRE	pathological bone fracture	4 (7.8)	0 (0.0)
	radiation to bone	20 (39.2)	16 (37.2)
	pathologic bone fracture + radiation to bone	0 (0.0)	1 (2.3)
Number of bone metastasis at enrollment	single	16 (31.4)	8 (18.6)
	multiple	32 (62.7)	31 (72.1)
	unknown	3 (5.9)	4 (9.3)
Strong opioid use at enrollment	yes	16 (31.4)	10 (23.3)
	no	35 (68.6)	33 (76.7)
Number of ZA treatment	median (range)	5 (1, 13)	3 (1, 6)



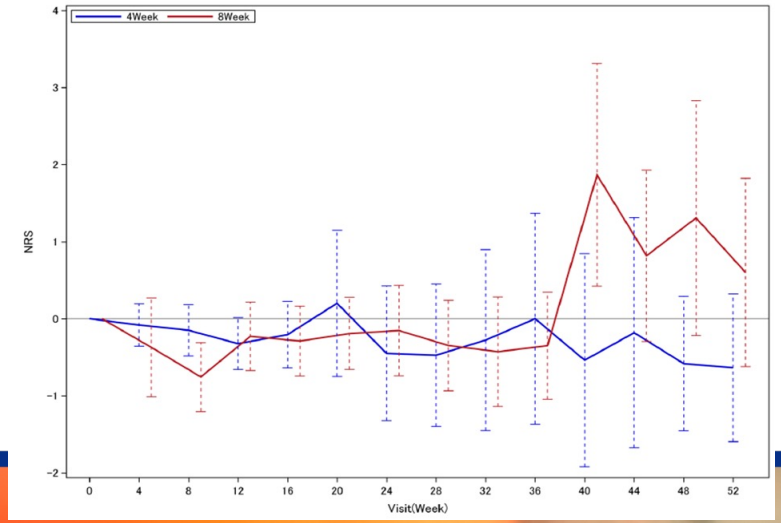
Event free rate	6 months	12 months	P
4 Week	86.3%	90.7%	0.715
8 Week	82.4%	76.7%	

Numbers at risk

4Week	51	49	44	41	38	35	29	27	25	25	22	21	21
8Week	43	43	42	38	36	33	28	27	26	22	18	18	17



Change of serum NTx



Change of pain NRS

Event	ZA every 4wks (n=51) (%)					ZA every 8wks (n=43) (%)				
	Grade 1	Grade 2	Grade 3	Grade 4	total	Grade 1	Grade 2	Grade 3	Grade 4	total
White blood cell	9	9	7		25 (49.0)	10	3	5		18 (41.9)
Hemoglobin	14	17	10		41 (80.4)	19	17	4		40 (93.0)
Neutrophil	2	5	3	5	15 (29.4)	2	5	1		8 (18.6)
Platelet	11	3	4		18 (35.3)	7	3	1		11 (25.6)
Albumin	29	11	4		44 (86.3)	23	15	1		39 (90.7)
AST	17				17 (33.3)	20				20 (46/5)
ALT	15				15 (29.4)	12	3			15 (34.9)
ALP	18	3	1		22 (43.1)	22	2			24 (55.8)
Creatinine	9	3			12 (23.5)	9				9 (20.9)
Hypernatremia	1				1 (2.0)	3				3 (7.0)
Hyperkalemia	9	5			14 (27.5)	12	1	1		14 (32.6)
Hypercalcemia	3				3 (5.9)	10	3			13 (30.2)
Urine protein	13	5	1		19 (37.3)	7	7			14 (32.6)
Skin eruption	6	5			11 (21.6)	7	4			11 (25.6)
Diarrhea	4	2			6 (11.8)	6	3			9 (20.9)
Fever	4	2			6 (11.8)	1	1			2 (4.7)
Pneumonia		2			2 (3.9)					0
Osteonecrosis of jaw		1			1(2.0)					0

Among patients with bone metastases from lung cancer, ZA every 8 weeks did not result in an increased risk of SREs over 1 year compared with the standard dosing interval of every 4 weeks.

Randomized Trials

Empty Cell	Patients	Type of therapy	Number	Overall survival	SRE	Safety
Bisphosphonates						
Pandya et al [56]	Stage IIIB and IV NSCLC without bone metastasis	Zoledronic acid 4 mg every 3 wk *v* No BMAs	98 *v* 52	7.3 mo *v* 5.3 mo (*P* = .49)	Notreported	Notreported
Scagliotti et al [57]	Stage IIIA/B NSCLC after first-line therapy	Zoledronic acid 4 mg ever 3-4 wk *v* No BMAs	226 *v* 211	30.3 mo *v* (NR) (NS)	2.2% *v* 1.4%	ONJ: 0.4% *v* 0.5%
Murakami et al [58]	NSCLC with bone metastasis	Zoledronic acid 4 mg every 3 wk *v* No BMAs	50 *v* 50	10.4 mo *v* 9.7 mo	44% *v* 48%	ONJ: 2% *v* 0%
Rosen et al [35]	Solid tumors with bone metastasis: 49.3% of NSCLC	Zoledronic acid 4 or 8 mg every 3 wk *v* Placebo	258 *v* 120	3.0 mo *v* 2.9 mo (*P* = .12)	35% *v* 44% (*P* = .023)	Notreported
Zarogoulidis et al [36]	Stage IV NSCLC with bone metastasis	Zoledronic acid 4 mg ever 3-4 wk *v* No BMAs	57 *v* 87	19.3 mo *v* 12.8 mo (*P* <.01)	Notreported	ONJ): 5% *v* 0%
Denosumab						
Peters et al [39]	Stage IV NSCLC: 53.7% with bone metastasis	Denosumab 120 mg every 3–4 wk *v* No BMAs	252 *v* 257	4.7 mo *v* 4.7 mo (*P* = .46)	7.7% *v* 11% (*P* = .13)	ONJ: 0% *v* 1.2%
Scagliotti et al [38]	Lung cancer (including SCLC) with bone metastasis	Monthly subcutaneous denosumab 120 mg *v* Intravenous zoledronic acid 4 mg	411 *v* 400	8.9 mo *v* 7.7 mo (*P* = .01)	Nonevaluated	ONJ: 0.7% *v* 0.8 Hypocalcemia: 8.6% *v* 3.8%

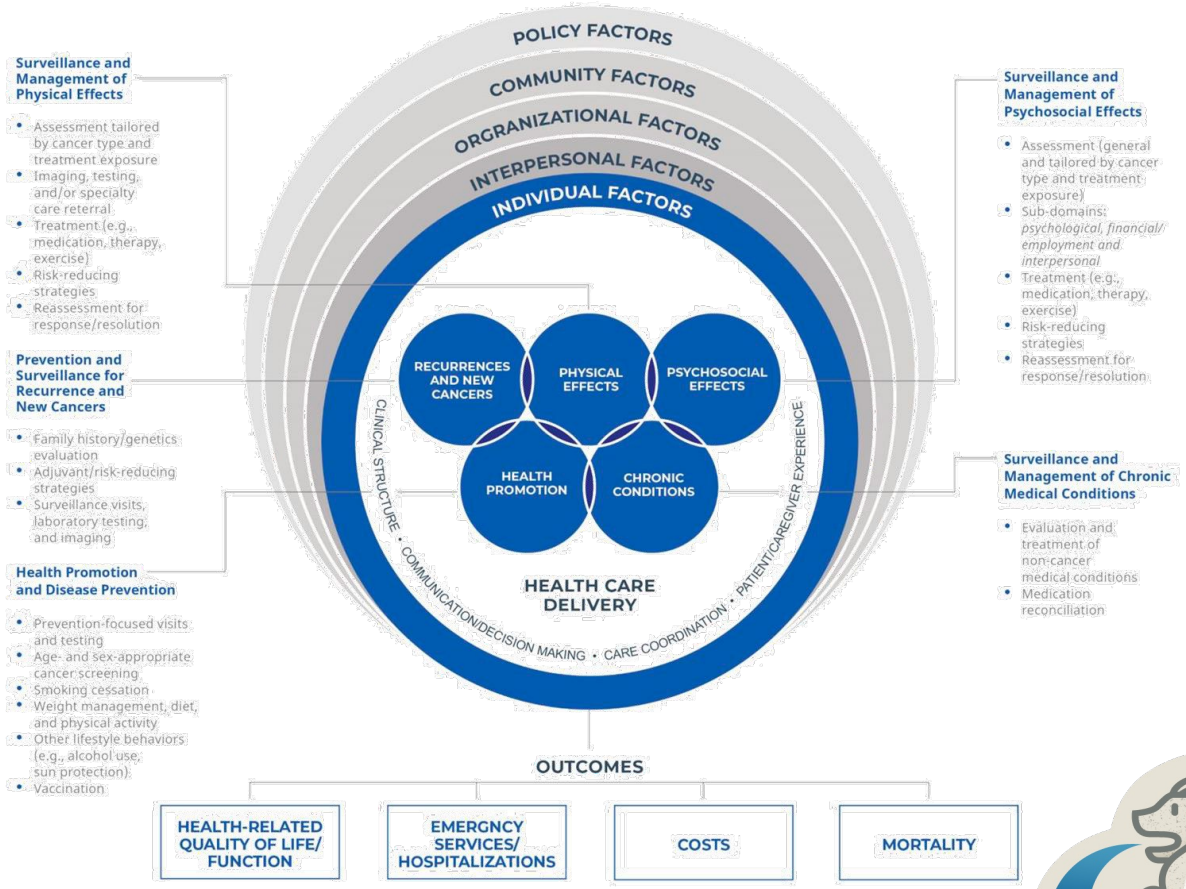
https://doi.org/10.1053/j.seminoncol.2023.09.002

Bone Modifying Agents:

- Options
  - Zoledronic Acid
  - Denosumab
- Risks
  - ONJ
  - Hypocalcemia
  - Osteoporosis
- Tradeoffs
  - Timeline
  - Dosing
  - Survival benefit?

Survivorship

- A growing number of older adults are living with lung cancer and may experience physical and psychosocial effects of cancer therapies.
- Low-income and older adults face unique barriers accessing cancer care
- Higher burden of unmet needs
- Worse quality of life
- Need to understand the unique needs of these vulnerable populations and develop interventions that support their needs.



Objectives:

•To evaluate the survivorship care needs of diverse, low-income, older adults with early-stage lung cancer.
•Secondary objective:
•Explore patient preferences on supportive care interventions to address their needs.

Study Design and Methods
Qualitative Study Design:
-Semi-structured patient interviews
-Interview guide developed based on survivorship literature
Study Population:
-Low-income older adults (age ≥ 50) who completed treatment for early-stage lung cancer and received care in an urban public hospital in Northern California
-Recruitment occurred from October 2021 to April 2022
22 older adults completed the 1:1 interviews
-**Data from 11 patients** (9 English and 2 Spanish) is presented.
Data Collection and Analysis:
-Bilingual study team members conducted 1:1 interviews
-Based on grounded theory, transcripts were coded using a constant comparative method and QSR NVIVO software

Conclusions/Findings

- Distress
- Gaps in communication and continuity of care
- Need for education about lifestyle modifications and cancer-risk reduction
- Fear of Cancer Recurrence
- Unmet Social Needs

Conclusions:

- Palliative care is imperative but should be done with screening AND discretion
- There continues to be a need to understand the role and timing of bone modifying agents in lung cancer as folks are living longer and developing more complications
- Survivorship is an unmet need especially for our older adults in low income populations, and interventions need to be specific and targeted for these populations